

ARITHMETIC SERIES

Sum to n terms:

$$S_n = \frac{n}{2} [2a + (n-1)d]$$

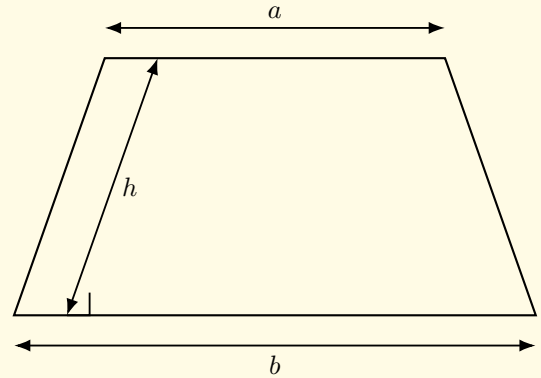
QUADRATIC EQUATION

For $ax^2 + bx + c = 0$, where $a \neq 0$:

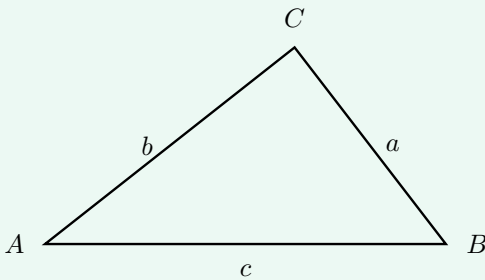
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

AREA OF A TRAPEZIUM

$$A = \frac{1}{2}(a+b)h$$



TRIGONOMETRY



In any triangle ABC :

Sine Rule $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$

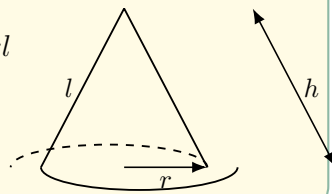
Cosine Rule $a^2 = b^2 + c^2 - 2bc \cos A$

Area of triangle $A = \frac{1}{2}ab \sin C$

CONE

Volume: $V = \frac{1}{3}\pi r^2 h$

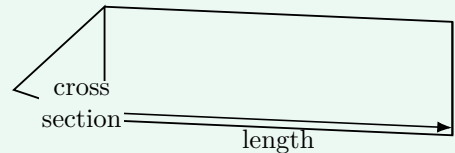
Curved surface area: $A = \pi r l$



PRISM

Volume of prism:

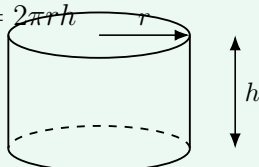
$$V = (\text{area of cross section}) \times (\text{length})$$



CYLINDER

Volume: $V = \pi r^2 h$

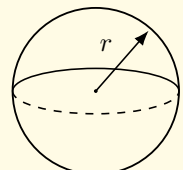
Curved surface area: $A = 2\pi r h$



SPHERE

Volume: $V = \frac{4}{3}\pi r^3$

Surface area: $A = 4\pi r^2$



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